Applicant	: Srinivasan Ramasubramanian et al.	Art Unit	: 2163
		Examiner	: Tuankhanh Phan
Serial No.	: 10/784,568	Conf. No.	: 8638
Filed	: February 23, 2004		
Title	: ACCESS MECHANISMS FOR EFFICIENT SHARING IN A NETWORK		

Commissioner for Patents
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Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants submit this request under the U.S. Patent and Trademark OfficeOG Notice, "New Pre-Appeal Brief Conference Pilot Program," dated 12 July 2005, which was extended indefitely by U.S. PTO OG Notice, dated February 7, 2006.

Claims 1 and 3-32 are pending. All of the claims except one dependent claim (10) stand rejected under 35 U.S.C. § 102(b) as being anticipated by Yamamoto et al. (US Pub. 20030043855) ("Yamamoto"). Dependent claim 10 stands rejected as obvious based in part on Yamamoto. In addition, certain claims stand rejected under 35 U.S.C. 112, first paragraph. Applicants fully addressed all rejections in a response after final filed on September 18, 2008. An advisory action mailed October 6, 2008, addressed only the Yamamoto prior art rejections, and made no mention of Applicants' traversal of the written description rejections.

Applicants submit that important claim limitations of Applicants' claimed subject matter that define over Yamamoto, and that were argued in Applicants' responses, have been improperly ignored in the examination. The bulk of the discussion below addresses the rejections based on Yamamoto. Given that the Advisory Action offers no response to Applicants' stated positions on the written description issues, this document only briefly discusses those rejections.

> ***Yamamoto Rejections:** Applicants' Claimed Subject Matter Is Patentable Over Yamamoto, Which Fails to Disclose or Suggest a Current Node's Use of the Transmission Rounds of an Immediately Preceding Node to Limit the Number of In-Transit Packets that are Sent In a Transmission Round from from the Current Node.*

Applicants have come up with a way of efficiently and fairly moving data through ring or daisy-chain type networks. In various described embodiments, each of the nodes in the network sends packets in transmission rounds, and typically, multiple packets are

sent in each transmission round. In a single transmission round, for example, some of the packets being sent by a node may have been generated by other nodes (and thus are "in transit" in the node), while other packets may have been generated locally within the node. Each packet that is transmitted from a node contains what is called a "transmission round identifier," which identifies (for the next node that receives the transmission) the transmission round in which the packet was sent.

With Applicants' claimed subject matter, a network node is able to determine, for each of its "in transit" packets, the transmission <u>round of the preceding node</u> in which the packet was sent. This information is used by the node to set a <u>limit on the "in transit" packets</u> that the node in turn <u>sends to the next node in its own transmission round</u>. In particular, the node can only send "in transit" packets that were sent by the immediately preceding node <u>in the same transmission round</u>, thus giving fair opportunity for locally generated packets (stored in the node's "local buffer") to enter the transmission stream.

With respect to Applicants' claim 1, for example, there is no disclosure or suggestion in Yamamoto of the last element of Applicants' claim 1 of "transmitting data packets from the specific one node in the first direction in successive transmission rounds, <u>wherein in each successive transmission round there is transmitted</u> i) one or more <u>data packets from the first transit buffer that each have the same assigned transit buffer round identifier</u>, if any data packets are present in the first transit buffer, <u>and</u> ii) one or more <u>data packets from the first local buffer</u>, if any data packets are present in the first local buffer." In addition with respect to claim 1, there is no disclosure or suggestion in Yamamoto of the preceding recitation in Applicants' claim 1 of, "for each received data packet, i) <u>if the transmission round identifier for the packet does not match a transmission round identifier for an immediately preceding received data packet, changing a first transit buffer round indicator</u> for a first transit buffer in the specific one node; [and] ii) if the destination identifier for the data packet does not match the node identifier of the specific one node, <u>storing the data packet in the first transit buffer</u> for later transmission by the specific one node to another node in the first direction, the first <u>data packet being stored with an assigned indicator of the current transit buffer round</u>."

The Examiner's position with respect to these claim limitations cannot be sustained. The final Office Action refers to paragraphs 45, 46 and 50 of Yamamoto. (See

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Office Action, page 6, lines 4-5.) These paragraphs, like the rest of Yamamoto, do not disclose or suggest the claim element in dispute. In particular, paragraph 45 of Yamamoto simply describes the storage, in a particular node, of a non-broadcast packet (in which the B-bit is 0) that is not destined for the particular node in certain buffers of the particular node (namely buffers 511-518 shown in FIG. 5B), and paragraph 46 of Yamamoto simply describes storage for broadcast packets (in which the B-bit is 1). Paragraph 50 of Yamamoto simply describes certain configuration information that is preliminarily stored in a header detector portion of each node, for example, the node's number assigned to the node, etc. None of these paragraphs provides any support for the contentions in the Office Action regarding the last element of claim 1.

Further, with respect to the Examiner's reliance on paragraphs 44 and 45 of Yamamoto as stated in the Advisory Action, paragraph 44 simply discloses that a node checks a destination node identifier for a received packet to determine if the packet is destined for that node, and if so, forwards that packet accordingly. Again, neither paragraph 44 nor paragraph 45 disclose or suggest the use of a transmission round identifier from a preceding node to limit the number of in-transit packets that are sent in a transmission round of the receiving node.

Additional arguments set forth in Applicants' response after final are not addressed in the Advisory Action. For example, with respect to claim 1's recitation of "for each received data packet, i) if the transmission round identifier for the packet does not match a transmission round identifier for an immediately preceding received data packet, changing a first transit buffer round indicator for a first transit buffer in the specific one node," Applicants pointed out that paragraph 33, lines 1-5 of Yamamoto provides no support for the Examiner's position. Rather, the cited portion of Yamamoto simply describes the unremarkable feature of address detection. This again provides no support for Yamamoto disclosing, as recited in claim 1, "changing a first transit buffer round indicator for a first transit buffer in the specific one node."

In addition with respect to claim 1's recitation of "for each round data packet, …ii) if the destination identifier for the data packet does not match the node identifier of the specific one node, storing the data packet in the first transit buffer for later transmission by the specific one node to another node in the first direction, the first data packet being stored with an assigned indicator of the current transit buffer round,"

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Applicants pointed out that the final Office Action's reference to paragraphs 45, 46 and 50 of Yamamoto (discussed above), as well as Figure 22 of Yamamoto, do not disclose or suggest in any way a method in which "in transit" packets are _stored with an assigned indicator of a current transit buffer_ round (which is changed, as recited earlier in the claim, "if the transmission round identifier for the packet does not match a transmission round identifier for an immediately preceding received packet"). Paragraphs 45, 46 and 50 of Yamamoto, described above, relate in no way to this claim requirement of claim 1, and Figure 22 of Yamamoto is simply being relied upon in the Office Action for the proposition that a downstream direction may be a first direction and this also is of no support.

Turning now to independent claim 11, Yamamoto does not disclose or suggest a computer implemented method that comprises an operation in which "if the first transit buffer is determined to be not empty, _transmitting in the first direction one or more data packets stored in the first transit buffer if a first transmission condition is satisfied, wherein a determination of whether the first transmission condition is satisfied depends on information regarding a most recently transmitted data packet transmitted by the specific one node in the first direction, and transmitting in the first direction a data packet stored in the first local buffer if the first transmission condition is not satisfied._"

With respect to independent claim 22, Yamamoto does not disclose or suggest "using the local buffers and the transit buffers to process data between the nodes in processing cycles, wherein each node is capable of receiving data from another node, and _wherein each node transmits to another node, in each successive processing cycle, i) one or more data packets from the transit buffer **that were each transmitted by a prior node in the same processing cycle**, if any data packets are present in the first transit buffer, and ii) one or more data packets from the first local buffer, if any data packets are present in the first local buffer._"

Independent claims 27, 28 and 29 generally track, respectively, independent claims 1, 11 and 22, and therefore similarly are not disclosed or suggested by Yamamoto.

Therefore, the rejection of all claims based on Yamamoto cannot be sustained.

The Written Description Rejections Cannot Be Sustained.

First with respect to claims 1, 3-10, 22-27 and 29, the Office Action contended that the recitation of "successive transmission round(s)" and "successive processing

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cycles" did not have written description support. As Applicants explained in their response after final, Applicants' specification discloses a transmission scheme in which, during successive rounds or cycles, the data identified in parts i) and ii) of the last claim element of claim 1 are transmitted. (See page 10, lines 14-24; and page 14, lines 5-8.) In addition, Applicants' specification discloses that packets are transmitted in groups that are referred to, interchangeably, as "rounds" or "cycles. (See Page 14, lines 5-8; Page 14, line 21 to page 15, line 11.) Accordingly, this written description rejection cannot be sustained.

Second with respect to claims 1, 3-21, 27-28 and 30, the Office Action contended that the recitation of "a (the) specific one node" did not have written description support. As Applicants explained in their response after final, the use of "specific one node" in the claims is used to make clear that the operations recited in the claims are performed by one particular node in a multi-node network, which indeed is the case in the system described in Applicants' specification. Accordingly, this written description rejection also cannot be sustained.
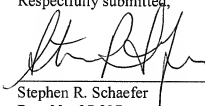
Conclusion

Applicants submit that claims 1 and 3-32 are in condition for allowance, and request that all outstanding rejections be withdrawn.

Respectfully submitted,

Date: _October 20, 2008_

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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number: 08411-0037001	
CERTIFICATE OF MAILING BY EFS-WEB FILING	Application Number 10/784,568	Filed February 23, 2004	
I hereby certify that this paper was filed with the Patent and Trademark Office using EFS-WEB system on this date: October 20, 2008.	First Named Inventor Srinivasan Ramasubramanian et al.		
	Art Unit 2163	Examiner Tuankhanh Phan	

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
 Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
 See 37 CFR 3.71. Statement under 37 CFR 3.73(b)
 is enclosed. (Form PTO/SB/96)

☒
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  (Reg. No.)

☐ attorney or agent acting under 37 CFR 1.34.
 Registration number if acting under 37 CFR 1.34 _____

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 October 20, 2008
 Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ Total of 5 forms are submitted.

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